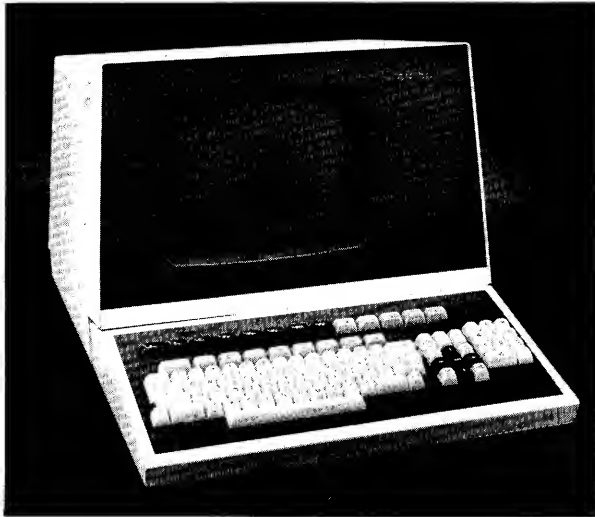


2616A CRT Terminal



The HP 2616A CRT Terminal is an operator-machine interface oriented to user requirements.

Features

- 12 inch rectangular display screen
- Upper/lower case characters
- Blinking and reverse video
- Page Mode
- Character, line and page editing
- Protected fields
- Tabulation
- RS-232C Data Communications
- 9600 Baud rate
- ANSI Code compatibility
- 106-key detachable keyboard
- 8-special function keys
- Hard-copy interface
- Off-screen storage

DISPLAY

The 2616A displays 2000 characters in 25 lines of 80 characters each. They are formed by a 5 x 7 dot matrix from a 7 x 10 dot scan refreshed at 60 Hz to eliminate flicker. The 7 x 10 dot scan enables lower case g, j, p, y, and q to use scan dots between adjacent lines.

PAGE-MODE OPERATION

The 2616A will transmit or receive either a character or a page at a time. Editing keys can be used to insert or delete characters, lines, or pages. This allows the operator to verify and correct data before transmission to the CPU. Transmission time may be further reduced with protected fields to create forms for data entry. After a form is filled in, only the entered data will be transmitted to the CPU. A maximum of 256 lines can be organized as 25 lines per page.

DATA COMMUNICATIONS

The 2616A offers asynchronous data communications with switch-selectable Baud rates from 110 to 9600. Data is coded according to ANSI USAS x 3.4 -1968, and the electrical interface conforms to EIA RS-232C. Interface to 2100-series computers is accomplished with the 12537B opt.001. An EIA-compatible plug allows connection to a printer for hard copy.

KEYBOARD

The 2616A's keyboard is capable of generating the full 96 ANSI character set. Six lighted switches are used to indicate operating mode. Operator entry errors are reduced by N-key rollover. Eight special function keys allow a user to tailor the terminal to special-purpose applications. Also contained on the keyboard are cursor and numeric pads. The keyboard may be detached and located up to four feet from the CRT.

HIGH RELIABILITY

Digital electronics are contained on two printed circuit boards to allow ease of maintenance and high reliability.

OPERATING MODES

Character

LOCAL: Characters entered from the keyboard are stored and displayed but not transmitted. Characters received are ignored.

ON LINE: Characters entered are transmitted as they are entered. In half duplex, characters are also stored and displayed. In full duplex they are not.

HEWLETT  PACKARD

Program Entry

LOCAL: Similar to local character mode except control codes entered are displayed and stored as special characters and not acted upon.

ON LINE: Similar to local program entry except that all alpha-numeric characters are transmitted.

Format

LOCAL: Characters entered from the keyboard are stored and displayed, but not transmitted. Line/Page edit functions are not operable.

ON LINE: Similar to local format except characters are transmitted and received.

EDITING

ESC K (EOL): Erases to end of line

ESC J (ERM): Erases to end of memory

ESC N: Causes insert and delete functions to be performed on a page basis

ESC O: Resets insert and delete to a line basis

ESC Q: Inserts character

Character mode: Characters are entered at the cursor's location. In page edit mode, characters at and following the cursor's position are shifted right until the end of buffer is reached. In line edit, this operation ends at the first line containing at least two spaces at the end of line.

Format mode: Characters are shifted in the unprotected fields

Program entry: The function code is displayed in reverse video but not performed.

ESC P: Deletes character
Same as insert character except characters are left shifted

ESC L: Inserts line
Moves the current line down one

ESC M: Deletes line
Entire current line is deleted

FUNCTIONS

ESC Ø: Print
When ESC Ø is generated by the keyboard or received on the I/O, an ETX is stored at the cursor's location, and the data from home (or a previous ETX) is transmitted on the printer I/O.

ENTER: Initiates block transmission

ESC S: Moves display up one line

ESC T: Moves display down one line

ESC U: Moves display up 25 lines

ESC V: Moves display down 25 lines

ESC p through ESC w: Two character sequences which are generated by depressing one of the eight function keys and ETX

RESET: Initializes the 2616A

ESC F: Precedes a six digit cursor address

ESC a: Initiates cursor sense (an eight digit address)

CTRL - (NEW LINE): Performs a return, line-feed in auto-efficient mode

ESC]: Protects remaining characters from over striking (start protected field)

ESC [: Terminates protected field

ESC 1: Sets tab at cursor's location for all lines in memory

ESC 2: Clears the tab at the cursor's location

CTRL I: Positions cursor at next tab location

ESC `: Positions cursor at most previous tab location

ESC b: Enables keyboard

ESC c: Disables keyboard

ESC E: Clear

ESC H: Home

ESC A: Cursor up

ESC B: Cursor down

ESC C: Cursor right

ESC D: Cursor left

ESC Ø: Start blink

ESC-1: Start reverse video

ESC-2: Start blink/reverse

ESC-3: Stop blink or reverse

INDICATORS

POWER ON: Terminal power is on.

FORMAT: Terminal is in format mode.

ON-LINE: Terminal is in program entry mode.

PRINT ON LINE: Terminal is transmitting received data to the printer I/O.

INSERT: Terminal is in insert character mode.

PAGE EDIT: Editing is in a page basis, not line basis.

SHIFT LOCK: Upper-case letters only

CONTROLS

Power: on/off

Transmission mode: full/half duplex
local/on-line

Auto Efficient Paging

Baud rate

Baud rate multiplier

Lower case inhibit

Product Specifications

PACKAGE

Weight: Video Monitor 55 lbs. (25 kg)
Keyboard 9.5 lbs. (4,3 kg)

DIMENSIONS

Video Monitor:

Width: 20 in. (51,1 cm)
Depth: 17.6 in. (44,4 cm)
Height: 16 in. (40,6 cm)

Keyboard:

Width: 20 in. (50,8 cm)
Depth: 12.5 in. (31,7 cm)
Height: 3.5 in. (8,8 cm)

ENVIRONMENT

HP A-5950-53441 Class C except

Temperature

Operating: +5° to +40°C
Storage: -20° to 75°C

Humidity: 5% to 80% (non-condensing)

Heat Dissipation: 35 BTU/hr.

Shock: 12" drop in shipping container

Altitude: Sea level to 10,000 ft.

POWER

2616A: 117/230 VAC $\pm 10\%$, 46-67Hz, 200W

12587B-001: .08A (+12V), .045A (-12V), .07A (-2V),
1.6A (+4.5V)

DISPLAY

Character type: 5 x 7 dot matrix

Character size: 2m by 4,5mm

Characters displayed: 2000 maximum

Characters stored: 2048

Maximum # of lines stored: 256 organized as 25 lines
per page

Characters per line: 80

Lines displayed: 25

Lines per page: 25

Refresh rate: 60 Hz

Character Set: 96 character ASCII

32 control codes (displayable)

Video modes: standard (white on black background)

blinking

reverse (black on white)

reversed blinking

Memory: MOS semiconductor

Cursor: Flashing underline

DATA COMMUNICATIONS

EIA RS-232C serial asynchronous

Data Rate: 110, 150, 220, 300, 600, 740, 880, 1200,
1760, 2400, 3520, 4800, 7040, 9600 – switch
selectable

KEYBOARD

Stand-alone; may be used remotely up to four feet from
the display unit

N-key rollover

Auto-repeat

Ten-key numeric pad

Cursor pad

93 keys plus 5 edit and 8 special function keys

Product Support

HARDWARE SUPPLIED

2616A: CRT Terminal

12587B-001: Interface card and 25 foot cable

SOFTWARE SUPPLIED

24307 Driver (DOS-III)

2616A Diagnostic

DOCUMENTATION SUPPLIED

2616A Diagnostic Manual (2616-90002)

2616A Operator's Manual (2616-90003)

2616A Service Manual (2616-90004)

ORDERING INFORMATION

HP 2616A CRT Terminal

HP 2616A-015 230V

12587B-001 Interface Kit with cable – operates to
2400 Baud with HP 24307 (DOS-III)

Printed in USA 12/73 5952-4536(22)



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